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PLASMA TV

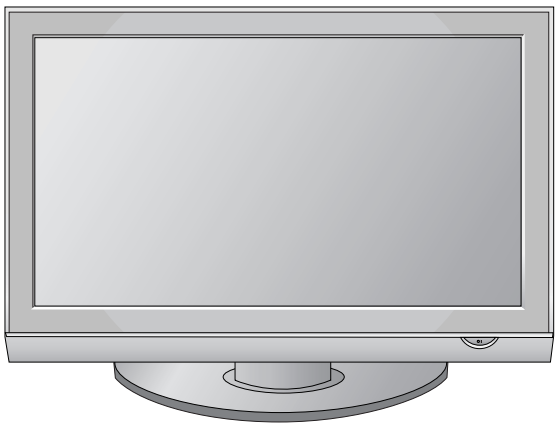
MANUAL DE SERVICIO

CHASIS : PP81A

MODELO : 42PG20R 42PG20R-MA

ATENCIÓN

Antes de dar servicio al chasis, lea las PRECAUCIONES DE SEGURIDAD en este manual.



CONTENIDO

CONTENIDO 2

PRECAUCIONES DE SEGURIDAD 3

INSTRUCCIONES DE AJUSTE 4

DIAGRAMA EN BLOQUE 12

VISTA EN DESPIECE 14

LISTA DE VISTA EN DESPIECE.....15

DIAGRAMA ESQUEMÁTICO.....

TABLERO DE CIRCUITO IMPRESO .....

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PRECAUCIONES DE SEGURIDAD

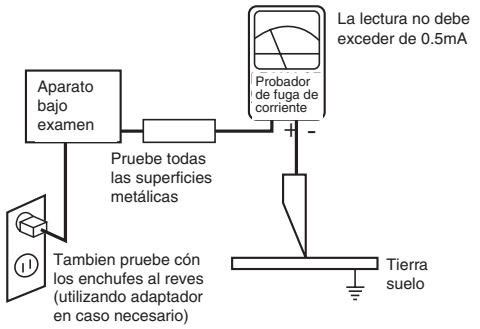
ADVERTENCIA: Antes de dar servicio a este chasis, lea "PRECAUCIONES RESPECTO A RADIACION POR RAYOS X", "INSTRUCCIONES DE SEGURIDAD" y "AVISO SOBRE SEGURIDAD DE PRODUCTOS"

INSTRUCCIONES DE SEGURIDAD

1. Cuando el receptor está en operación, se producen voltajes potencialmente tan altos como 25,000-29,000 voltios. Operar el receptor fuera de su gabinete o con la tapa trasera removida puede causar peligro de choque eléctrico.
   (1) Nadie debe intentar dar servicio si no está debidamente familiarizado con las precauciones que son necesarias cuando se trabaja con un equipo de alto voltaje.
   (2) Siempre descargue el ánodo del tubo de la imagen a tierra para evitar el riesgo de choque eléctrico antes de remover la tapa del ánodo.
   (3) Descargue completamente el alto potencial del tubo de imagen antes de manipularlo. El tubo de la imagen es de alto vacío y, si se rompe, los fragmentos de vidrio salen despedidos violentamente.
2. Si se quemara algún fusible de este receptor de televisión, reemplácelo con otro especificado en la lista de partes.
3. Cuando reemplace tableros o plaquetas de circuitos, cuidadosamente enrolle sus alambres alrededor de las terminales antes de soldar.
4. Cuando reemplace un resistencia de vataje (resistor de película de óxido metálico) en el Tablero o Plaqueta de circuitos, mantenga la resistencia a un mínimo de 10mm de distancia.
5. Mantenga los alambres lejos de componentes de alto voltaje o de alta temperatura.
6. Este receptor de televisión debe conectarse a una fuente de 100 a 240 V AC.
7. Antes de devolver este aparato al cliente, haga una verificación de fuga de corriente sobre las partes metálicas del gabinete expuestas, tales como antenas, terminales, cabezas de tornillos, tapas de metal, palancas de control etc., para estar seguro de que el equipo funciona sin peligro de choque eléctrico. Enchufe el cordón directamente al tomacorriente de la línea de AC 100-240V.

No utilice una línea aislada de transformador durante esta verificación. Use un voltímetro de 1000 Ohmios por voltio de sensibilidad o más, en la forma que se describe a continuación.

Cuando la unidad está ya conectada a la AC, pulse el conmutador primero poniéndolo en "ON" (encendiendo) y luego en "OFF" (apagando), mida desde un punto de tierra conocido, tal como una (cañería de metal, una manija metálica, una tubería etc.) a todas las partes metálicas expuestas del receptor de televisión (antenas, manijas de metal, gabinetes de metal, cubiertas de metal, palancas de control etc.,) especialmente cualquiera de las partes metálicas expuestas que puedan ofrecer un camino hacia el chasis. Ninguna medición de corriente eléctrica debe exceder de 0.5 miliamperios. Repita la prueba cambiando la posición del enchufe en el tomacorriente. Cualquier medición que no esté dentro de los límites especificados aquí representan un riesgo potencial de choque eléctrico que debe ser eliminado antes de devolver el equipo al cliente.


La lectura no debe exceder de 0.5mA
Probador de fuga de corriente
Aparato bajo examen
+ -
Pruebe todas las superficies metálicas
Tambien pruebe cón los enchufes al reves (utilizando adaptador en caso necesario)
Tierra suelo

AVISO SOBRE SEGURIDAD DE PRODUCTOS

Muchas de las partes, electricas y mecánicas en este chasis tienen caracteristicas relacionadas con la seguridad. Estas caracteristicas frecuentemente pasan desapercibidas en las inspecciones visuales y la proteccion que proporcionan contra la RADIACION DE RAYOS-X no siempre necesariamente se obtiene al mismo grado cuando se reemplazan piezas o componentes diseñados para voltajes o vatajes mayores, etc. Las piezas que tienen estas caracteristicas de seguridad se identifican por la marca ⚠ impresa sobre el diagrama esquematico. Antes de reemplazar alguno de esos componente, lea cuidadosamente la lista de este manual. El uso de partes de reemplazo que no tengan las mismas caracteristicas de seguridad, como se especifica en la lista de partes, puede crear Radiacion de Rayos-X.

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INSTRUCCIONES DE AJUSTE

1. Application Range

This spec. sheet is applied to all of the PP81A Chassis.

2. Specification

(1) Because this is not a hot chassis, it is not necessary to use an isolation transformer. However, the use of isolation transformer will help protect test instrument.
(2) Adjustment must be done in the correct order.
(3) The adjustment must be performed in the circumstance of 25±5˚C of temperature and 65±10% of relative humidity if there is no specific designation.
(4) The input voltage of the receiver must keep 100~240V, 50/60Hz.
(5) Before adjustment, execute Heat-Run for 30 minutes at RF no signal.

3. ADC calibration

	Component	RGB
MSPG-925FA	Model : 216 (720P@60Hz)	Model : 60 (1024X768@60Hz)

3-1. PC input ADC

(1) Auto RGB Gain/Offset Adjustment

1) Convert to PC in Input-source
2) Signal equipment displays
Output Voltage : 700 mVp-p
Impress Resolution XGA (1024 x 768 @ 60Hz)
Model : 60 in Pattern Generator
Pattern : 54 in Pattern Generator (MSPG-925 SERISE)
[1/2 Black & White Pattern (Refer below picture)].

<Fig. 1>

3) Adjust by commanding AUTO_COLOR_ADJUST(0xF1) 0x00 0x02 instruction.

(2) Confirmation

1) We confirm whether “0xB6(RGB)” address of EEPROM “0xA2” is “0xAA” or not.
2) If “0xB6(RGB)” address of EEPROM “0xB2” isn’t “0xAA”, we adjust once more
3) We can confirm the ADC values from “0xB0~0xB5(RGB)” addresses in a page “0xA2”

※ Manual ADC process using Service Remocon. After enter Service Mode by pushing “ADJ” key, execute “ADC Adjust” by pushing “►” key at “Adjust-RGB”.

3-2. COMPONENT input ADC

(1) Component Gain/Offset Adjustment

1) Convert to Component in Input-source
2) Signal equipment displays
Impress Resolution 720P
MODEL : 216 in Pattern Generator(720P Mode)
PATTERN : 33 in Pattern Generator(MSPG-925 SERISE)

Adjustment pattern (COMPONENT)

3) Adjust by commanding AUTO_COLOR_ADJUST(0xF1) 0x00 0x02 instruction

(2) Confirmation

1) We confirm whether “0xC8(720P)” address of EEPROM “0xA2” is “0xAA” or not.
2) If “0xC8(720P)” address of EEPROM “0xA2” isn’t “0xAA”, we adjust once more
3) We can confirm the ADC values from “0xB9~0xBE(480i)/ 0xC2~(1080i)” addresses in a page “0xA2”

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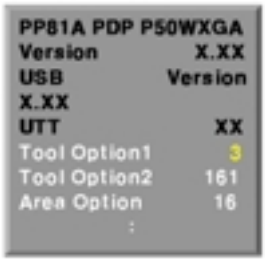
4. PCB Assembly Adjustment Items

4-1. Option Adjustment Following BOM

Tool Option1
Tool Option2
Area Option



<Fig. 2>

* Profile: Must be changed the option value because being different with some setting value depend on module, inch and market
* Equipment : Adjustment Remote Controller

(1) Push the IN-START key in the Adjust R/C.
(2) Input the Option Number that was specified in the BOM, into the Shipping area.
(3) Select “Tool Option1/ Tool Option2/ Area Option” by using ▲/▼(CH+/-) key, and press the number key(0~9) consecutively
ex) If the value of Tool Option1 is 7, input the data using number key “7” (Fig. 2)

Caution: Don’t Push “IN-STOP” key after PCB assembly adjustment.

(4) Adjustment method
Before PCBA check, have to change the Tool option and Area option

※ About PDP
After done all adjustments, Press IN-START button and compare Tool option and Area option value with its BOM, if it is correctly same then Change “RF mode” and then unplug the AC cable.
If it is not same, then correct it same with BOM and unplug AC cable.
For correct it to the model°Øs module from factory JIG model.

※ Don’t push The IN-STOP KEY after completing the function inspection.

5. S/W Program Download

5-1. Profile

This is for downloading the s/w to the flash memory of the IC803

5-2. Equipment

(1) PC
(2) ISP_tool program
(3) Download jig

5-3. Connection Structure

5-4. Connection Condition

(1) IC name and circuit number : Flash Memory and IC803
(2) Use voltage : 3.3V (5 pin)
(3) SCL : 15 pin
(4) SDA : 12 pin
(5) Tact time : about 2min and 30seconds

6. Download Method (PCB Ass’y)

6-1. Preliminary Steps

(1) Connect the download jig to D-sub jack

(2) Connect the PC to USB jack

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6-2. Download Steps

(1) Execute 'ISP Tool' program in PC, then a main window will be opened

(2) Click the connect button and confirm "Dialog Box".

(3) Read and write bin file
Click "(1)Read" tab, and then load download file(XXXX.bin) by clicking "Read".

(4) Click "Auto(2)" tab and set as below
(5) Click "Run(3)".
(6) After downloading, check "OK(4)" message.

7. EDID(The Extended Display Identification Data) / DDC (Display Data Channel) Download

※ Caution
- Use the proper signal cable for EDID Download
- Never connect HDMI & D-SUB Cable at the same time.
- Use the proper cables below for EDID Writing

7-1. Profile: To be possible for plug and play

7-2. Equipment

(1) Adjusting PC with S/W for writing EDID Data.(S/W: EDID TESTER Ver.2.5)
(2) A Jig for EDID Download
(3) Cable : Serial(9Pin or USB) to D-sub 15Pin cable, D-sub 15Pin cable, DVI to HDMI cable.

7-3. Connection Structure

<Fig. 3> Connection Diagram of DDC Download

Caution: Never connect HDMI & D-SUB Cable at the same time.

7-4. EDID Data

NO	Item	Condition	16진 Data
1	Manufacturer ID	GSM	1E6D
2	Version	Digital : 1	01
3	Revision	Digital : 3	03

● XGA EDID DATA
<Analog : 128bytes>

Addr	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
0000	00	FF	FF	FF	FF	FF	FF	00	1E	6D	①			①		
0010	①		01	03	08	46	27	78	EA	D9	B0	A3	57	49	9C	25
0020	11	49	4B	A1	08	00	01	01	45	40	61	40	01	01	01	01
0030	01	01	01	01	01	01	1									
0040	1								2							
0050	2										00	00	00	FD	00	3B
0060	46	1F	4A	10	00	0A	20	20	20	20	20	20	②			
0070	②														00	②

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<HDMI 1 : 256bytes>

Addr	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
0000	00	FF	FF	FF	FF	FF	FF	00	1E	6D	ⓐ		ⓐ			
0010	ⓐ		01	03	08	46	27	78	EA	D9	B0	A3	57	49	9C	25
0020	11	49	4B	A1	08	00	01	01	45	40	61	40	01	01	01	01
0030	01	01	01	01	01	01	1									
0040	1								2							
0050	2										00	00	00	FD	00	3B
0060	46	1F	4A	10	00	0A	20	20	20	20	20	20	ⓓ			
0070	ⓓ														01	ⓔ
0080	02	03	26	F1	50	02	03	84	05	07	10	11	12	13	14	16
0090	1F	20	21	22	01	23	09	07	07	83	01	00	00	68	03	0C
00A0	00	10	00	B8	2D	00	01	1D	00	80	51	D0	1C	20	40	80
00B0	35	00	BC	88	21	00	00	1E	8C	0A	D0	8A	20	E0	2D	10
00C0	10	3E	96	00	13	8E	21	00	00	18	00	00	00	00	00	00
00D0	00	00	00	00	00	00	00	00	00	00	00	00	01	1D	80	18
00E0	71	1C	16	20	58	2C	25	00	C4	8E	21	00	00	9E	00	00
00F0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	ⓔ

<HDMI 2 : 256bytes>

Addr	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
0000	00	FF	FF	FF	FF	FF	FF	00	1E	6D	ⓐ		ⓐ			
0010	ⓐ		01	03	08	46	27	78	EA	D9	B0	A3	57	49	9C	25
0020	11	49	4B	A1	08	00	01	01	45	40	61	40	01	01	01	01
0030	01	01	01	01	01	01	1									
0040	1								2							
0050	2										00	00	00	FD	00	3B
0060	46	1F	4A	10	00	0A	20	20	20	20	20	20	ⓓ			
0070	ⓓ														01	ⓔ
0080	02	03	26	F1	50	02	03	84	05	07	10	11	12	13	14	16
0090	1F	20	21	22	01	23	09	07	07	83	01	00	00	68	03	0C
00A0	00	20	00	B8	2D	00	01	1D	00	80	51	D0	1C	20	40	80
00B0	35	00	BC	88	21	00	00	1E	8C	0A	D0	8A	20	E0	2D	10
00C0	10	3E	96	00	13	8E	21	00	00	18	00	00	00	00	00	00
00D0	00	00	00	00	00	00	00	00	00	00	00	00	01	1D	80	18
00E0	71	1C	16	20	58	2C	25	00	C4	8E	21	00	00	9E	00	00
00F0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	ⓔ

<HDMI 3 : 256bytes>

Addr	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
0000	00	FF	FF	FF	FF	FF	FF	00	1E	6D	ⓐ		ⓐ			
0010	ⓐ		01	03	08	46	27	78	EA	D9	B0	A3	57	49	9C	25
0020	11	49	4B	A1	08	00	01	01	45	40	61	40	01	01	01	01
0030	01	01	01	01	01	01	1									
0040	1								2							
0050	2										00	00	00	FD	00	3B
0060	46	1F	4A	10	00	0A	20	20	20	20	20	20	ⓓ			
0070	ⓓ														01	ⓔ
0080	02	03	26	F1	50	02	03	84	05	07	10	11	12	13	14	16
0090	1F	20	21	22	01	23	09	07	07	83	01	00	00	68	03	0C
00A0	00	30	00	B8	2D	00	01	1D	00	80	51	D0	1C	20	40	80
00B0	35	00	BC	88	21	00	00	1E	8C	0A	D0	8A	20	E0	2D	10
00C0	10	3E	96	00	13	8E	21	00	00	18	00	00	00	00	00	00
00D0	00	00	00	00	00	00	00	00	00	00	00	00	01	1D	80	18
00E0	71	1C	16	20	58	2C	25	00	C4	8E	21	00	00	9E	00	00
00F0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	ⓔ

● Detail EDID Options are below (ⓐ, ⓑ, ⓒ, ⓓ, ⓔ)

ⓐ Product ID

Model Name	Product ID		
	DEC	HEX	EDID table
50PG60UR-TA	50077(A)	C39D	9DC3
	50078(D)	C39E	9EC3
50PG20R-MA	50079(A)	C39F	9FCE
	50080(D)	C3A0	A0C3
42PG20R-MA	40197(A)	9D05	059D
	40198(D)	9D06	069D
42PG10R-TA	40225(A)	9D21	219D
	40226(D)	9D22	229D
42PG200R-ZA	40225(A)	9D21	219D
	40226(D)	9D22	229D

ⓑ Serial No
=> Controlled on production line

ⓒ Month, Year
=> Controlled on production line:
ex) Monthly: '11' -> '0B'
Year: '2007' -> '11'

ⓓ Model Name(Hex)

MODEL NAME	Model Name(HEX)																	
LG TV	00	00	00	FC	00	4C	47	20	54	56	0A	20	20	20	20	20	20	20

ⓔ Checksum
=> Changeable by total EDID data

1) 42inch Model

	(HEX)															
50/60inch Model	1B	21	50	A0	51	00	1E	30	48	88	35	00	BC	88	21	00	00	1C
42inch Model	64	19	00	40	41	00	26	30	18	88	36	00	BC	88	21	00	00	00

2) 50/60inch Model

	(HEX)															
50/60inch Model	0E	1F	00	80	51	00	1E	30	40	80	37	00	BC	88	21	00	00	18
42inch Model	A0	0F	20	00	31	58	1C	20	28	80	11	00	BC	39	20	00	00	00

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7-5. Preparation for Adjustment

(1) As above Fig. 3, Connect the Set, EDID Download Jig,, PC & Cable

(2) Turn on the PC & EDID Download Jig. And Execute the S/W : EDID TESTER Ver.2.5

(3) Set up the S/W option
Repeat Number : 5
Device Address : A0
PageByte : 8

(4) Power on the Set

1) Sequence of Adjustment

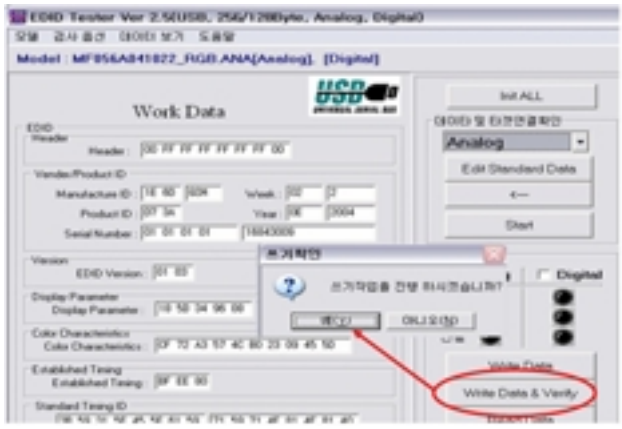
1. DDC data of Analog-RGB
(1) Init the data

(2) Load the EDID data.(Open File).

[Analog – RGB : PP81A_RGB.ANA]
[Digital – HDMI1 : PP81A_HDMI1.DVI]
[Digital – HDMI2 : PP81A_HDMI2.DVI]
[Digital – HDMI3 : PP81A_HDMI3.DVI]

(3) Set the S/W as below.

(4) Push the “Write Data & Verify” button. And confirm “Yes”.



(5) If the writing is finished, you will see the “OK” message.

8. HDCP(High-Bandwidth Digital Contents Protection)

(1) Connect D-sub Signal Cable to D-Sub Jack

(2) Input HDCP key with HDCP-key- in-program

(3) HDCP Key value is stored on Main M-STAR IC(LGE6891DD) which is 0x80~0x90 addresses of 0x00~0x01 page(EEPROM MAP PAGE0~PAGE1 / START :A080)

(4) Play the Equipment(DVD Player) included HDCP Key and confirm whether picture is displayed or not of using DVD Player.

(5) HDCP Key value is different among the sets

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9. Adjustment of White Balance

9-1. Purpose and Principle for Adjustment of the Color Temperature

(1) Purpose: Adjust the color temperature to reduce the deviation of the module color temperature.

(2) Principle : To adjust the white balance without the saturation, Fix the one of R/G/B gain to C0 and decrease the others.

(3) Adjustment mode: Two modes of Cool and Warm
(Cool data is automatically calibrated by the Medium data)

9-2. Required Equipment

(1) Remote controller for adjustment

(2) Color Analyzer : CA-100+ or CA-210 or same product
- PLASMA TV(ch : 10)

(3) Auto W/B adjustment instrument(only for Auto adjustment)
- Do the white balance adjustment under the 10LUX

※ Notice: When using the Color Analyzer with PDP, recommend the CA-100 more than CA-210.
If CA-100 can not available, it is also good to use the CA-210.

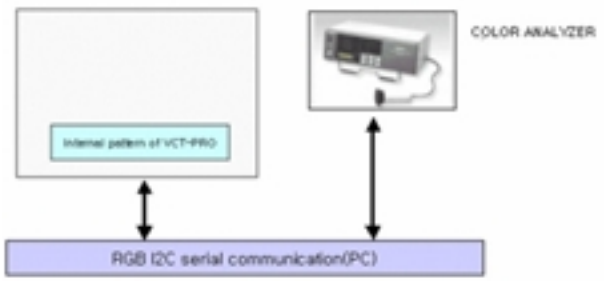
(4) PC (for communication through RGB)

(5) Pattern Generator (MSPG-925FA etc.)
-Before white balance, press the ADJ key 2times and do the reset like Fig. 4
-To enter White-balance mode, press the ADJ key 2times.

※ Caution: System control Host should be “DDC” for adjustment.

<Fig. 4>

9-3. Connecting Diagram of Equipment for Measuring (For Automatic Adjustment)



(1) Enter the adjustment mode of the white balance
- Enter the white balance adjustment mode at the same time heat-run mode when pushing the power on by power only key
- Maintain the white balance adjustment mode with same condition of Heat-run
- Maintain after AC off/on in status of Heat-run pattern display

(2) Release the white balance adjustment mode
- Release the adjust mode after AC off/on or std-by off/on in status of finishing the Hear-run mode
- Release the Adjust mode when receiving the aging off command(F3 00 00) from adjustment equipment)

(3) Enter the adjust mode of white balance
- Enter the white balance adjustment mode with aging command(F3, 00, FF)

● Color Temperature & Color Coordinates Setting
- When adjusting the Color Temperature, Color Analyzer CA-210(Matrix should be corrected through CH10 of CS-1000) should be used. When CA-210 have used, it don’t need to fit the CH10.
- Adjust the Color Temperature based below adjustment color coordinates.

● Target Value CA-210(LCD : CH 9, PDP : CH10), CA-100(PDP)
(Standard color coordinate and temperature when using the CA-100+ or CA210 equipment)

Mode	Color coordinate		Temp	△uv
	X	Y		
Medium	0.285±0.002	0.293±0.002	9,300k	+0.000
Warm	0.313±0.002	0.329±0.002	6,500k	+0.003

● Synchronization relation between PSM and CSM

PSM	CSM
Vivid	Cool
Mild	Warm

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● DDC Adjustment Command Set

No.	Adjustment content	CMD(HEX)	ADR	VALUE	detail
1	Aging On/Off	F3	00	FF/00	OO : OFF 01 : ON FF : WB Ready
2	Input select	F4	00		0x10 : TV 0x20 : AV1 0x21 : AV2 0x23 : AV3 0x40 : Component1 0x41 : Component2 0x60 : RGB PC 0x90 : HDMI1 0x91 : HDMI2 0x92 : HDMI3
3	**R GAIN**	**16**	00	00 - FE	Gain Adjustment
4	**G GAIN**	**18**		00 - FE	CSM COOL
5	**B GAIN**	**1A**		00 -FE	
6	**R GAIN**	**16**	01	00 - FE	Gain Adjustment
	G GAIN	**18**		00 - FE	CSM MEDIUM
	B GAIN	**1A**		00 -FE	
	R GAIN	**16**	02	00 - FE	Gain Adjustment
	G GAIN	**18**		00 - FE	CSM WARM
	B GAIN	**1A**		00 -FE	
	CSM mode	**F2**	00	00	COOL
				01	MEDIUM
				02	WARM
	EEPROM Read	**E7**	00	00	EEPROM read
	EEPROM Write	**E8**	00	data	EEPROM write

※ R/G/B GAIN max value : C0

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9-4. Adjustment of White Balance for Manual Adjustment

Adjustment mode: Two modes of Medium(Vivid) and Warm (Cool data is automatically calibrated by the Medium data)

- Equipment : 1) Color analyzer(CA100+, CA210) should be used in the calibrated ch by CS-1000(.(LCD : CH9, PDP : CH10)
  2) Adjustment remocon

- For manual adjustment, it is also possible by the following sequence.
  Operate the zero-calibration of the CA-100+ or CA-210, then stick sensor to the module when adjusting.

(1) Select white pattern of heat-run by pressing “POWER ON” key on remote control for adjustment then operate heat run longer than 15 minutes. (recommend)
(If not executed this step, the condition for W/B will be different)
(2) Changing to the AV mode by remote control.(Push front-AV)
(3) Input external pattern(85% white pattern).
(4) Stick sensor to center of the screen and select each items (Red/Green/Blue Gain and Offset) using ▲/▼(CH +/-) key on R/C..
(5) Adjust R/ G/B Gain using ◄/►(VOL +/-) key on R/C.
(6) Adjust two modes of Medium(Vivid) and Warm as below figure.
(Fix the one of R/G/B and change the others)
1) Default : Medium(Vivid)
2) Push the “VOL +” key twice : Warm

Mode	Color coordinate		Temp	△uv
	X	Y		
Medium	0.285±0.002	0.293±0.002	9,300k	+0.000
Warm	0.313±0.002	0.329±0.002	6,500k	+0.003

※ Refer to the below case to know what value is fixed.

[CASE]
First adjust the coordinate much away from the target value(x, y).
1. x, y > target
   1) Decrease the R, G.

2. x, y < target
   1) First decrease the B gain,
   2) Decrease the one of the others.
      - In case of decreasing the x, decreasing the R : fix G
      - In case of decreasing the y , decreasing the G : fix R

3. x > target , y < target
   1) First decrease B, so make y a little more than the target.
   2) Adjust x value by decreasing the R

4. x < target , y > target
   1) First decrease B, so make x a little more than the target.
   2) Adjust x value by decreasing the G

(7) When adjustment is completed, Exit adjustment mode using EXIT key on R/C.

Caution: Each PCB assembly must be checked by check JIG set. (Because power PCB Assembly damages to PDP Module, especially be careful)

10. POWER PCB Assy Voltage Adjustment(Va, Vs voltage Adjustment)

10-1. Test Equipment: D.M.M 1EA

10-2. Connection Diagram for Measuring

Refer to Fig. 5

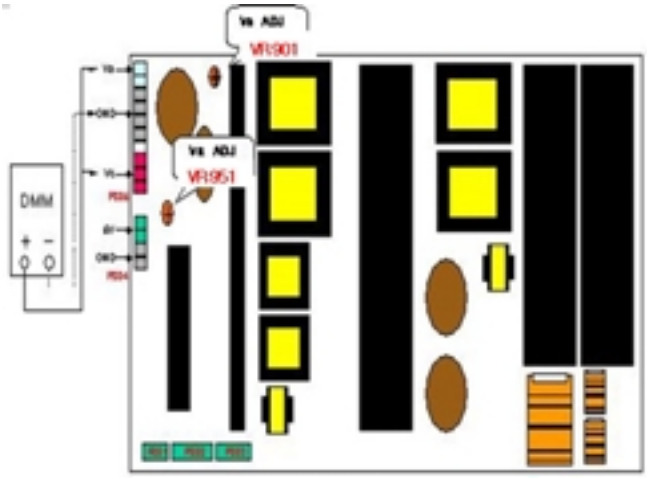
10-3. Adjustment Method

(1) Va Adjustment

1) After receiving 100% Full White Pattern, HEAT RUN.
2) Connect + terminal of D. M..M. to Va pin of P812, connect -terminal to GND pin of P812.
3) After turning VR901,voltage of D.M.M adjustment as same as Va voltage which on label of panel right/top (deviation; ±0.5V)

(2) Vs Adjustment

1) Connect + terminal of D. M..M. to Vs pin of P812, connect -terminal to GND pin of P812.
2) After turning VR951 401, voltage of D.M.M adjustment as same as Vs voltage which on label of panel right/top (deviation ; ±0.5V)



<Fig. 7> Connection Diagram of Power Adjustment for Measuring

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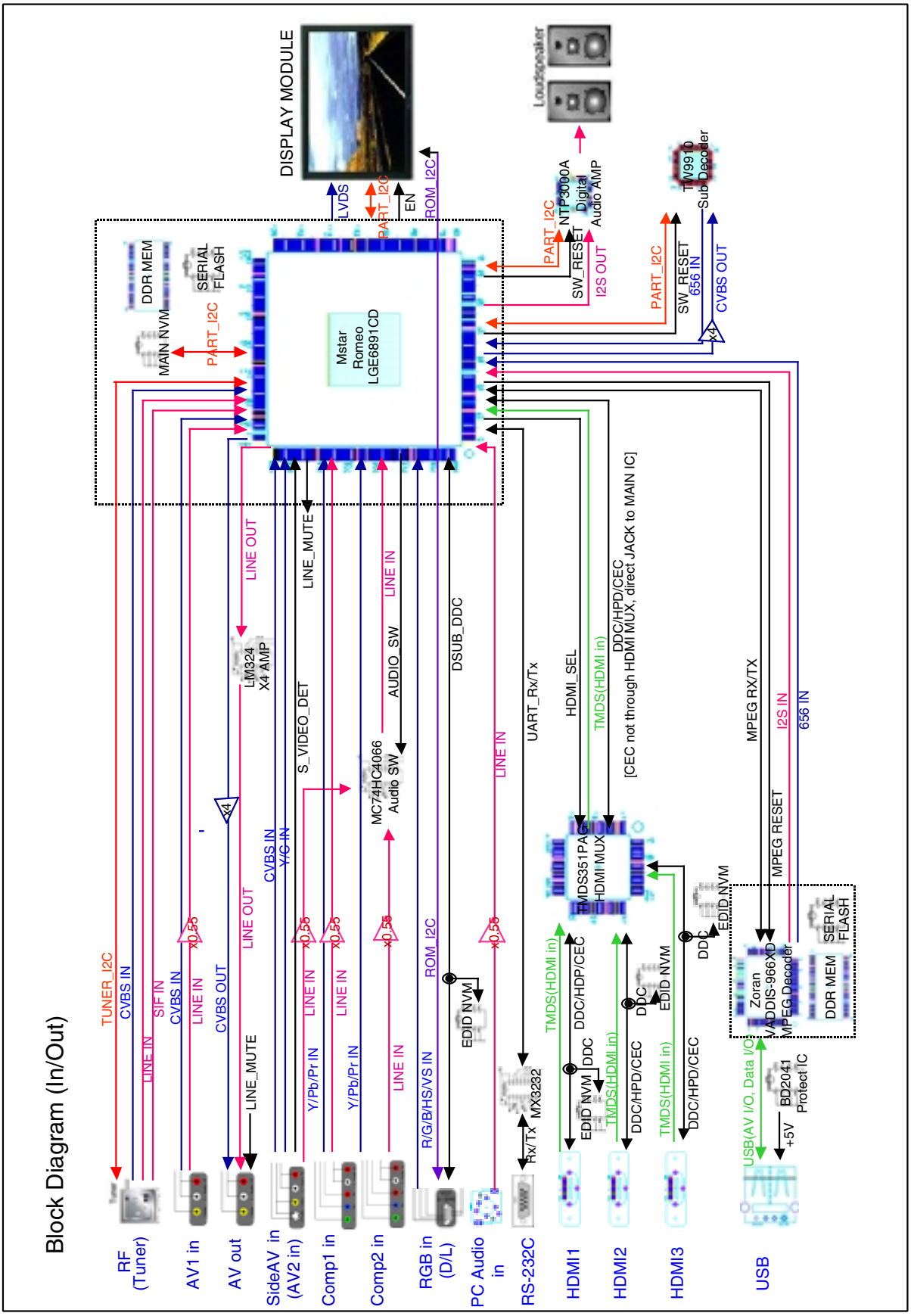
DIAGRAMA EN BLOQUE



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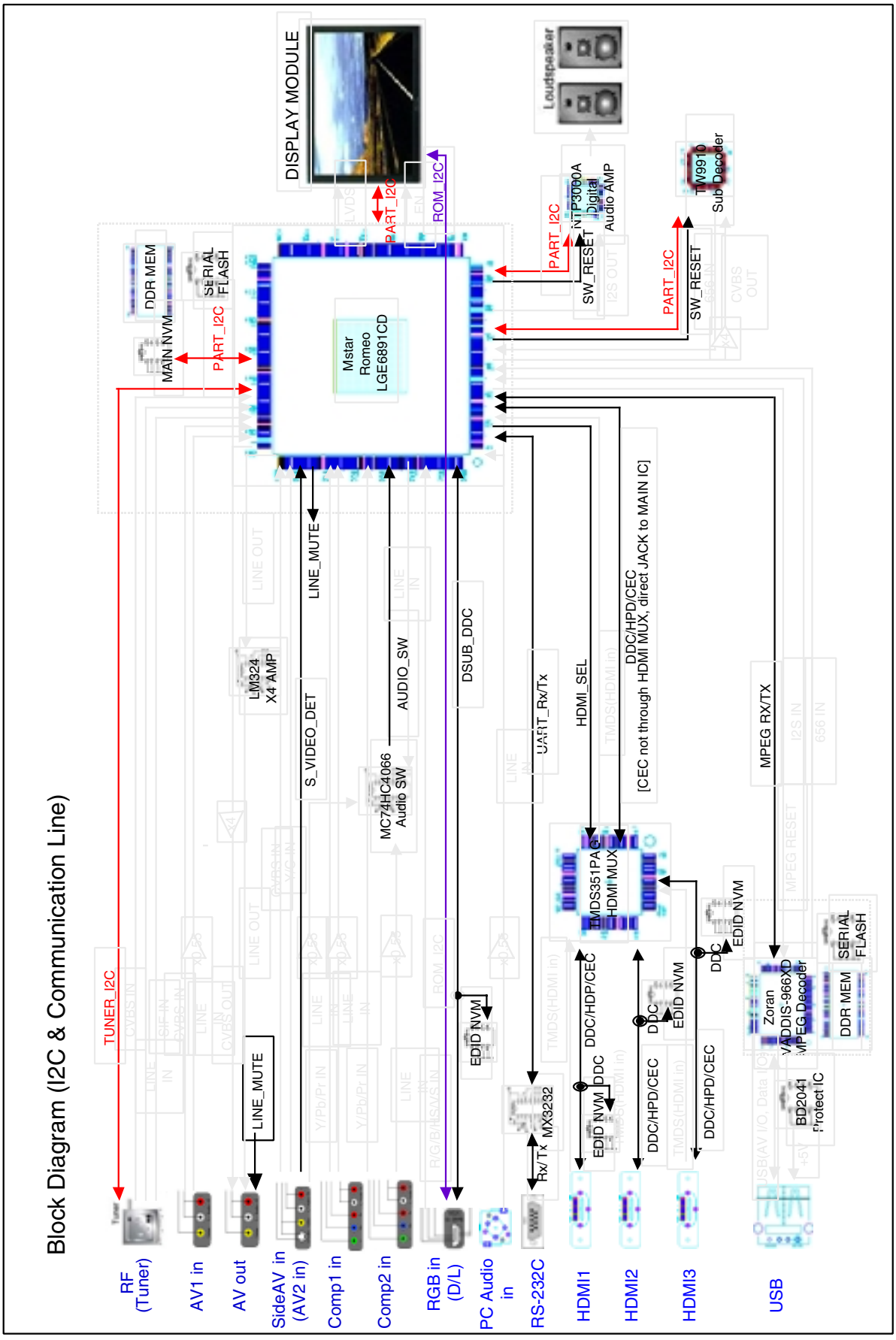

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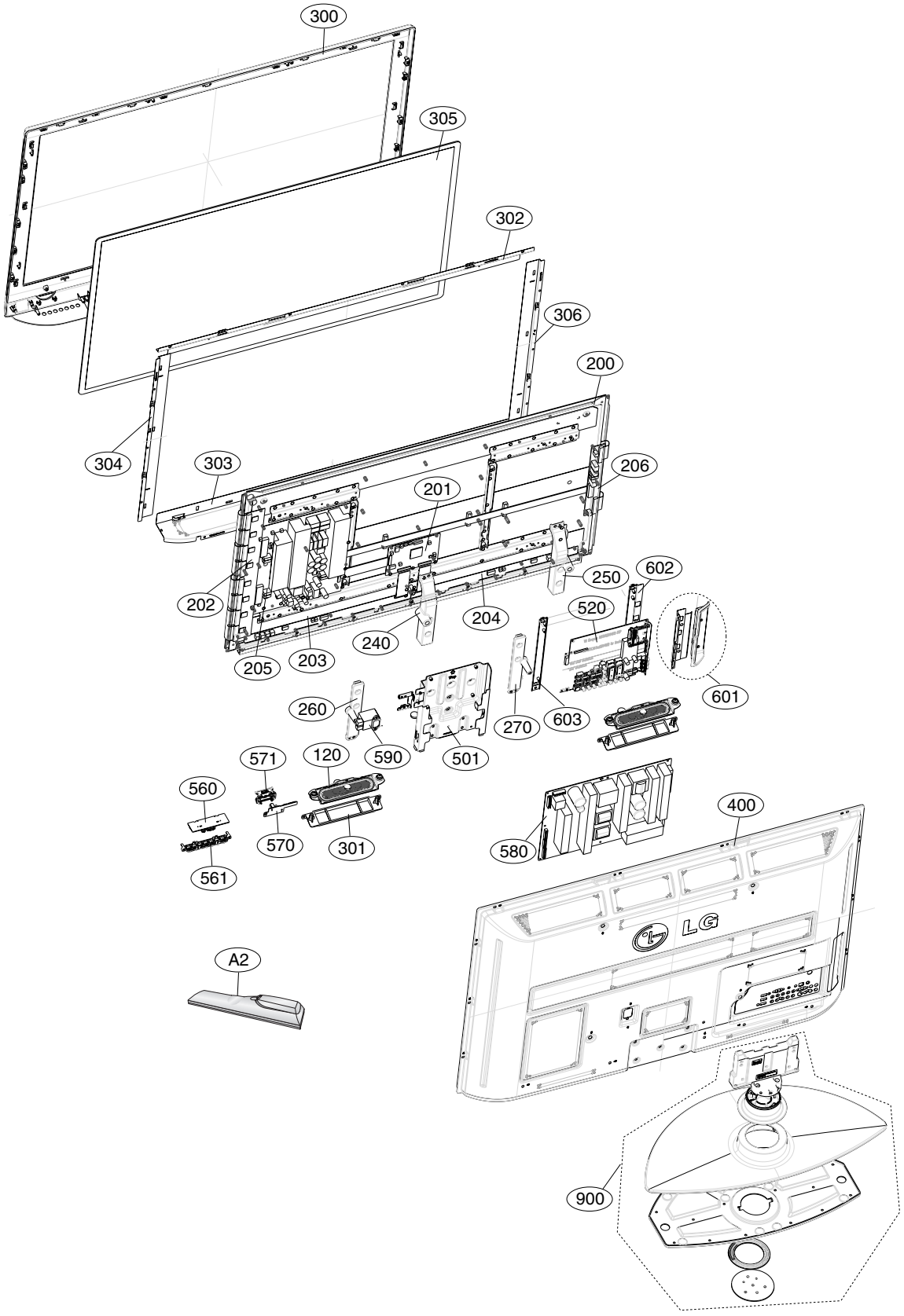
VISTA EN DESPIECE



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LISTA DE VISTA EN DESPIECE

No.	Part No.	Description
120	EAB42609901	Speaker,Full Range G1640501 FERRITE 10W 8OHM 82DB 100HZ 150X40 TRACK LUG EMSONIC
⚠ 200	EAJ41970710	PDP,Module-XGA PDP42G10001.ADLGB XGA 42INCH 1024X768 16/9 PDP DIVISION
201	EBR39594901	PCB Assembly,CTRL ASS'Y 42 G1
202	EBR39712601	PCB Assembly,YDRV ASS'Y 42 X5
203	EBR39595001	PCB Assembly,XRLB ASSY 42 G1
204	EBR39595101	PCB Assembly,XRRB ASSY 42 G1
205	EBR39706801	PCB Assembly,YSUS ASS'Y 42 G1
206	EBR41668901	PCB Assembly,ZSUS ASS'Y 42 X5
240	AJJ35680107	Supporter Assembly,42PG1/2/3, Vertical Supp. Top Assy(Right), SKD
250	AJJ35680108	Supporter Assembly,42PG1/2/3, Vertical Supp. Top Assy(Left), SKD
260	AJJ35680203	Supporter Assembly,42PG3/6, Vertical Supp. Bottom Assy(Right), SKD
270	AJJ35680204	Supporter Assembly,42PG3/6, Vertical Supp. Bottom Assy(Left), SKD
⚠ 300	ABJ35121804	Cabinet Assembly,42PG20R-MA H5 42 CABINET ASSEMBLY C/SKD
301	ABA36825001	Bracket Assembly,WOOFER PDP - 42 50 60 WOOFER SPEAKER BRACKET ASSY
302	AJJ35122402	Supporter Assembly,42PG2 Supp. Filter Top Assy WITH PACKING
303	AJJ35122502	Supporter Assembly,42PG2 Supp. Filter Bottom Assy With Packing
304	AJJ35122602	Supporter Assembly,42PG2 Supp. Filter Right Side Assy With Packing
305	MDJ42350902	Filter,CUTTING ACRYL GLASS FILTER PDP 42 SSC NORMAL (SPUTTER)
306	AJJ35122702	Supporter Assembly,42PG2 Supp. Filter Left Side Assy with packing
⚠ 400	ACQ35123204	Cover Assembly,Rear 42PG1/2 H5 CSKD 42 BACK COVER ASSEMBLY
501	MJH40272402	Supporter,PRESS EGI 1.6 GUIDE EGI 42PG6 Supp_module_guide, SKD, With Pemnut
520	EBR42642003	PCB Assembly,Main PP81A 42PG20R-MA H5(NO USB_NO SIDE HDMI) SKD
560	EBR43074901	PCB Assembly,Sub PP81A 42/50PG20R H5 LOCAL KEY HAND INSERT
561	MBG41119901	Button,Control MOLD HIPS 7 keys hips . 42_50PG2 CONTROL BUTTON 7KEYS
570	EBR43075201	PCB Assembly,Sub PP81A 42PG20R H5 PREAMP ASSY
571	ABA36967701	Bracket Assembly,POWER 42PG6 NON 42PG2/3/6/7 POWER BUTTON ASSY
⚠ 580	EAY41360401	SMPS,AC/DC LPX54 100VTO240V 420W 50Hz TO 60Hz UL/CSA/TUV PDP 42INCH HD-class CI Model
590	EAM35012711	Filter,AC Line IF2-E06DEW1
601	ABA35619211	Bracket Assembly,50PG6 AB H5,MIDDLE
602	MGJ41163806	Plate,PRESS SBHG 0.8 AV SPTE PLATE MAIN CHASSIS CENTER(MIDDLE) 121.5, H5, CSKD
603	MGJ41164510	Plate,PRESS SBHG 0.8 AV SPTE 42 SUPPORTER MAIN CHASSIS COMMON(SIDE A/V) 121.5 FOR
⚠ 900	AAN36825103	Base Assembly,STAND 42PG2 PP81A SWIVEL STAND ASSY SKD
A2	MKJ42519602	Remote Controller,MOLD ABS HF380 PA81A 42PG20R-MA H5

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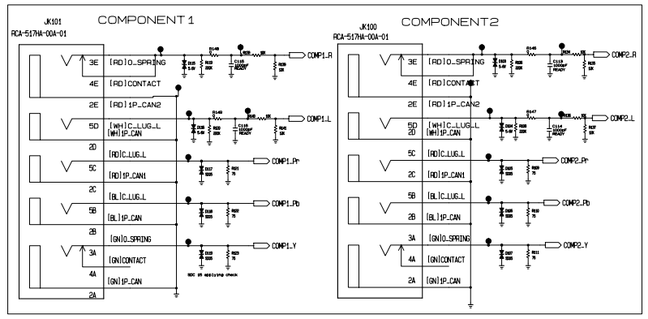

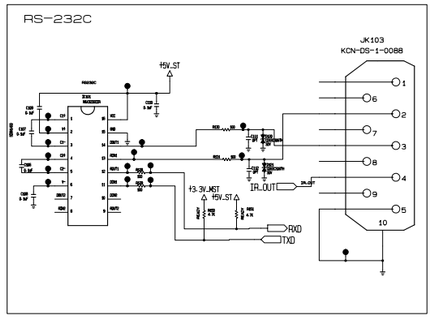

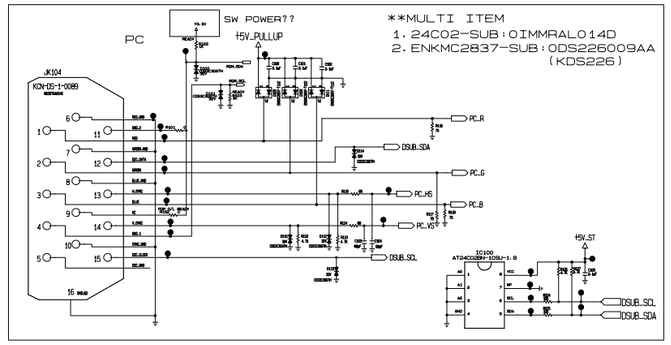

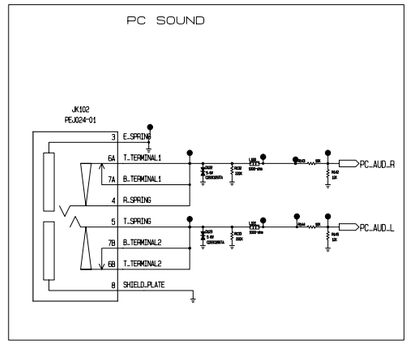

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INPUT1 : COMP1/2. RS232C. PC

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INPUT1

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1/10

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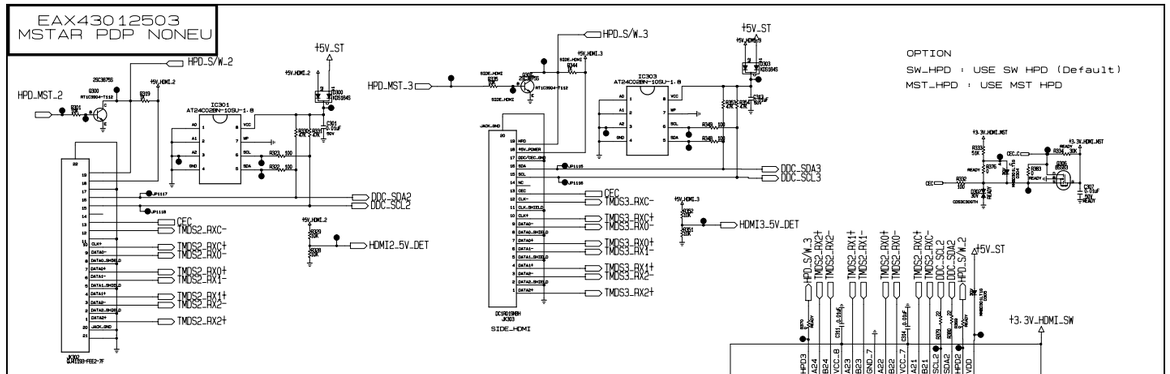

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HDMI

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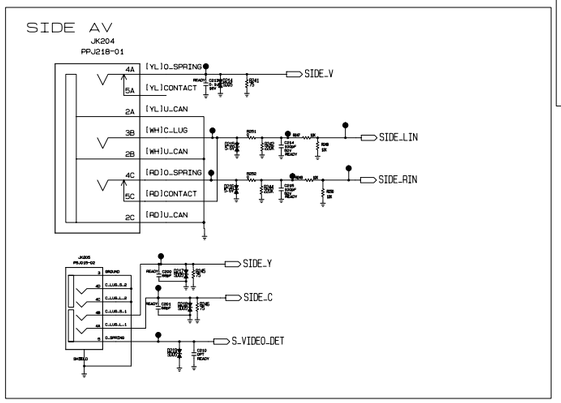

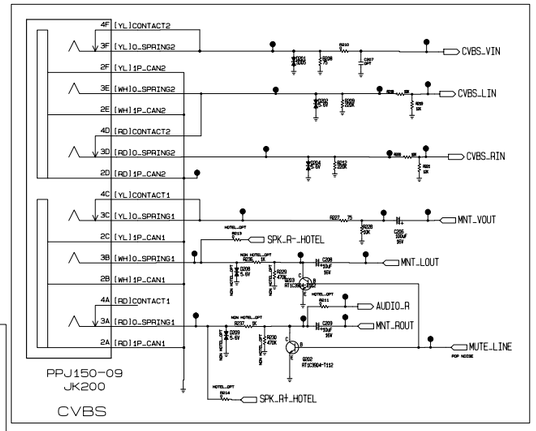

INPUT2 : CVBS. SIDE AV

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INPUT2

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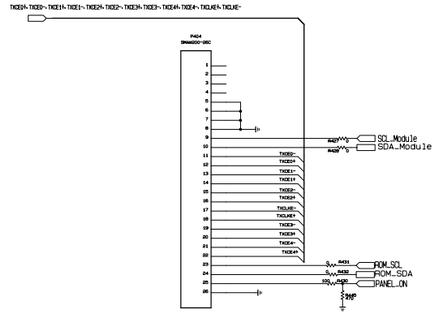
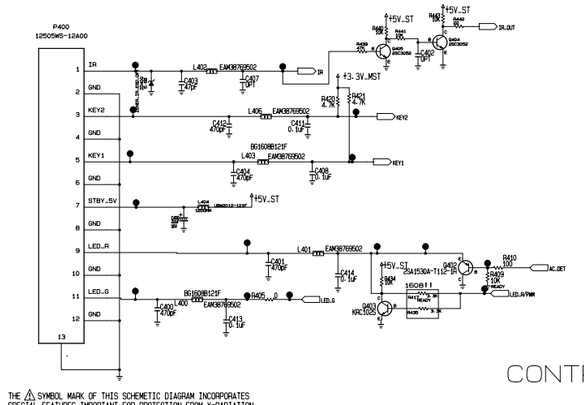
PANEL WAFER





CONTROL KEY

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LVDS. CTR KEY

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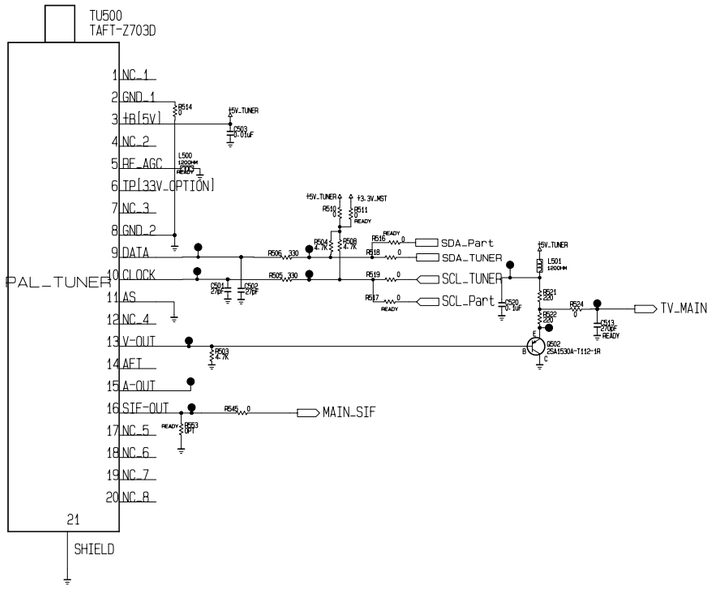

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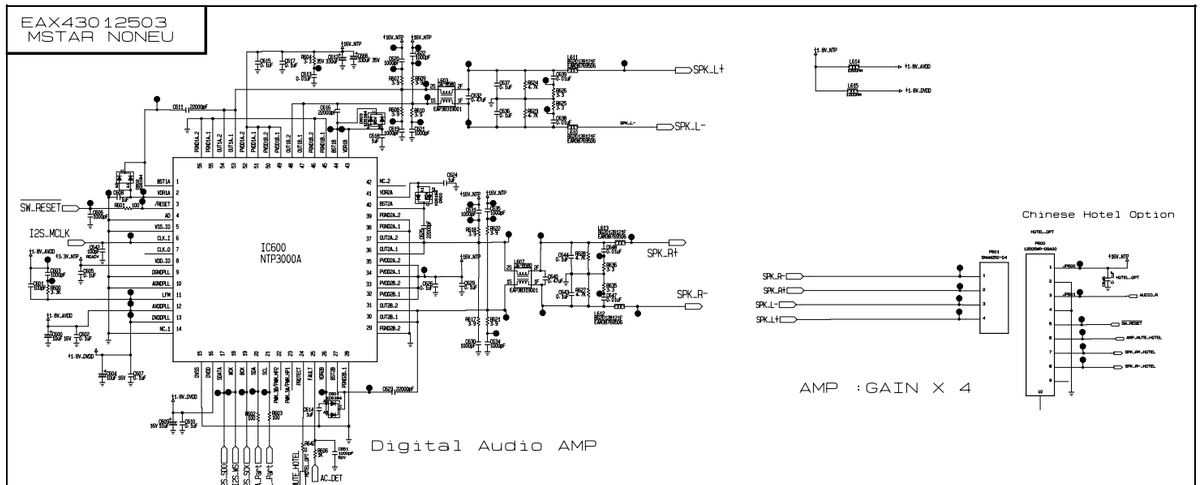

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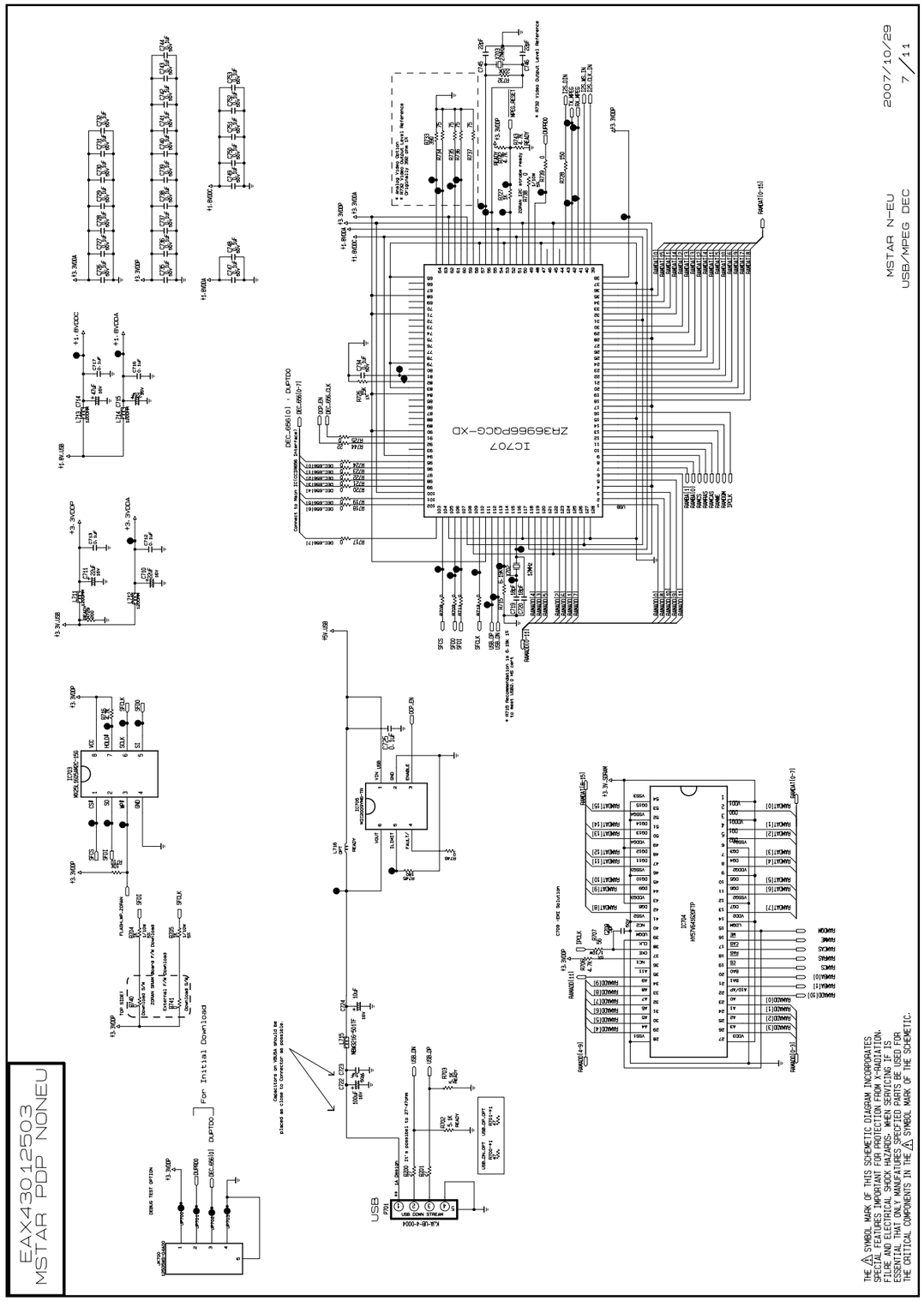

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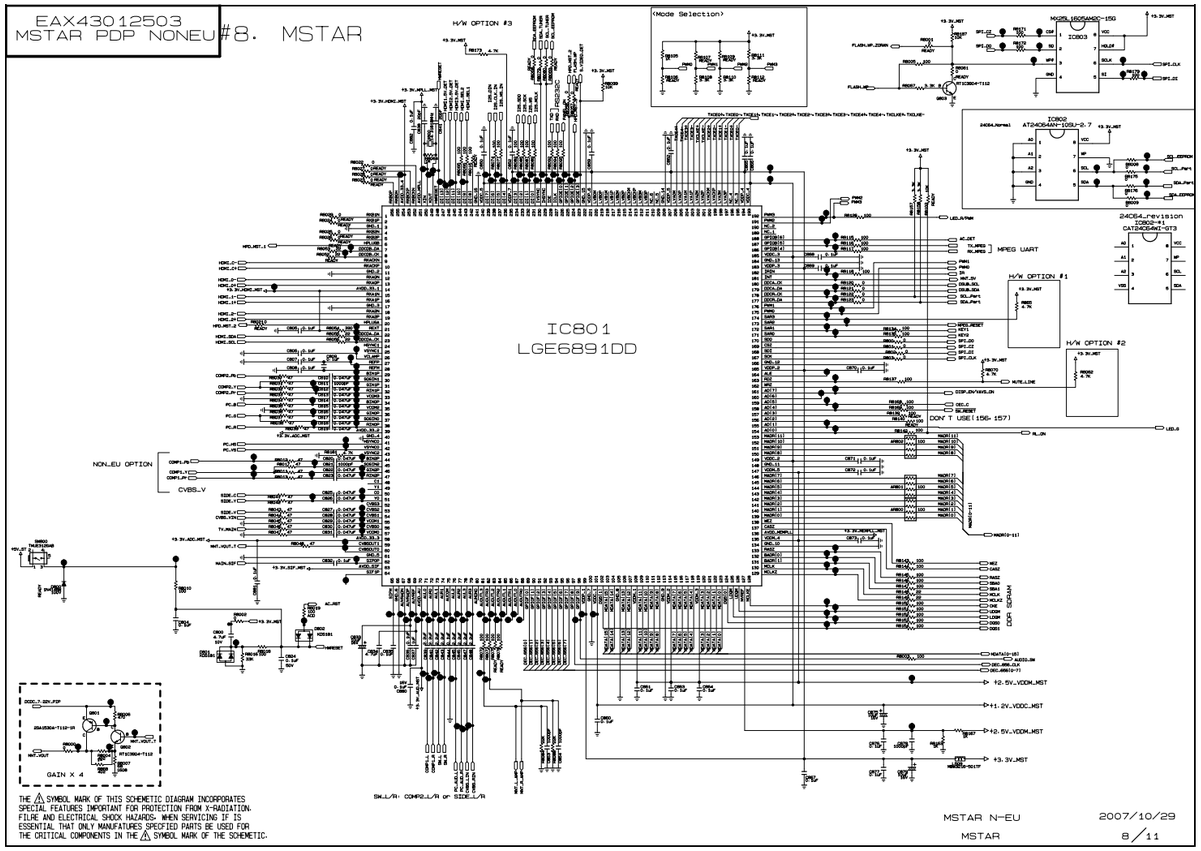

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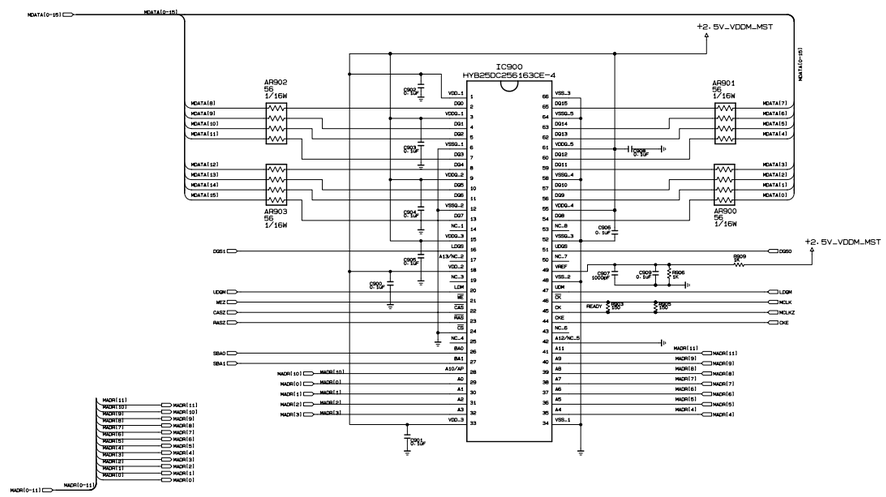
#9. DDR



**MULTI ITEM

MAIN - QIMONDA : EAN41788501
SUB - HYNIX : EAN31729202

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DDR 9/11

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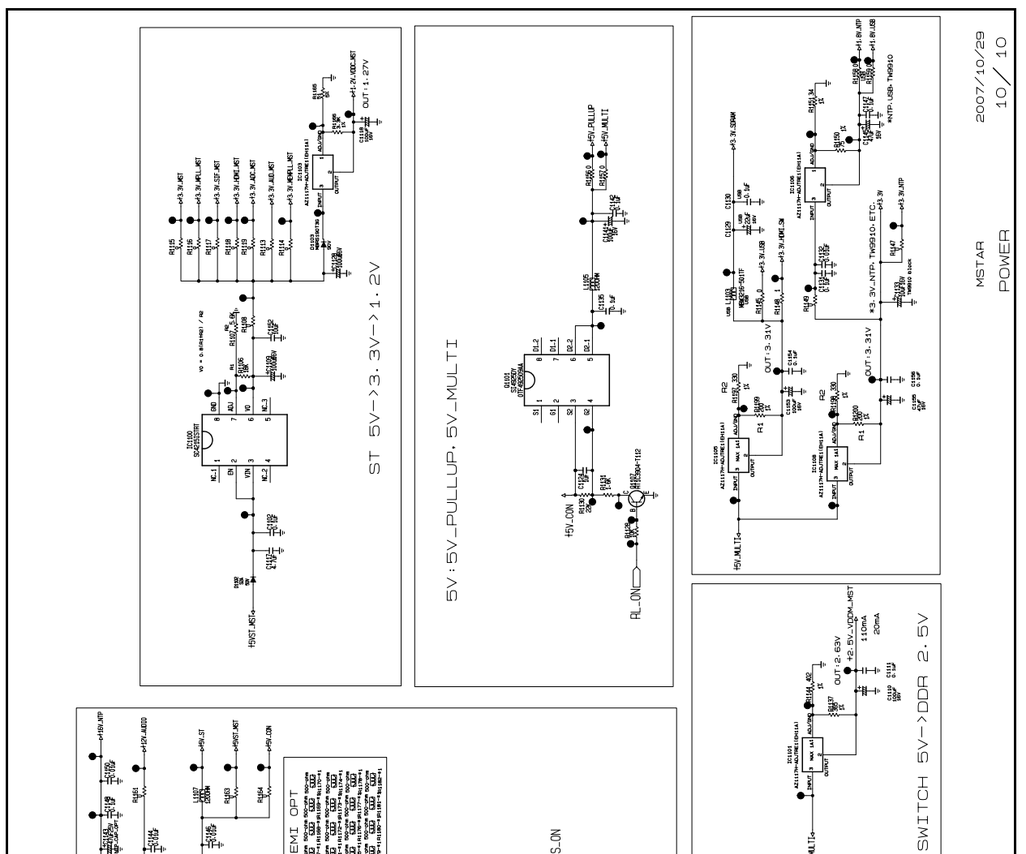

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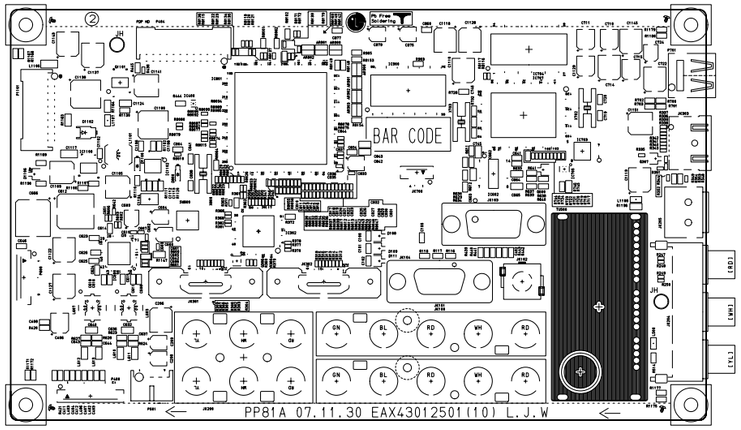
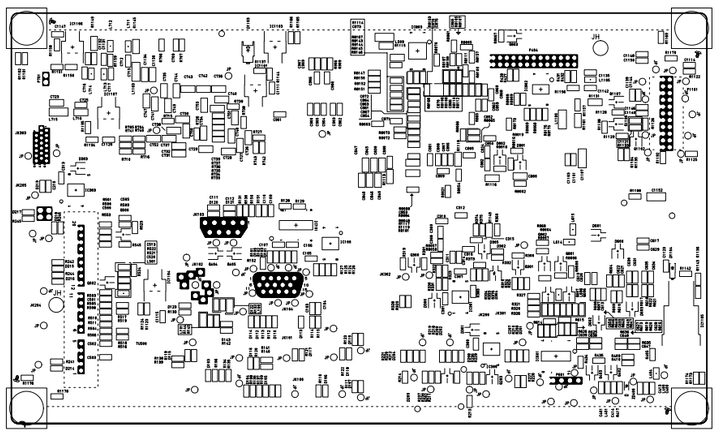
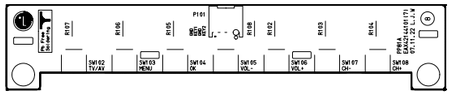
MAIN(TOP)



MAIN(BOTTOM)



CONTROL(TOP)



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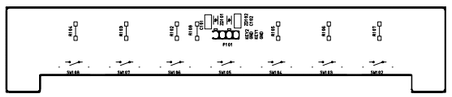
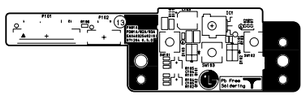


PRE-AMP(TOP)



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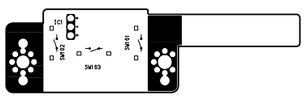

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